

Curriculum Vitae

Jannik Hofestädt

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Education and Positions

- 03/2017 - present Postdoctoral researcher at 'Erlangen Centre for Astroparticle Physics' (ECAP), University of Erlangen-Nürnberg
Field of research: Probing tau neutrino appearance with KM3NeT/ORCA and feasibility study for determination of the leptonic CP-phase with Super-ORCA
- 10/2012 - 02/2017 Ph.D. in Physics, highest distinction *summa cum laude*, University of Erlangen-Nürnberg
Thesis: "*Measuring the neutrino mass hierarchy with the future KM3NeT/ORCA detector*", advisor: Prof. Dr. Gisela Anton and Prof. Dr. Uli Katz
- 10/2009 - 04/2012 M.Sc. in Physics, average grade 1.2, University of Göttingen
Thesis: "*Muon triggers for Searches for Supersymmetry in Multi-Lepton Final States with the ATLAS Detector*", advisors: Prof. Dr. Arnulf Quadt and Dr. Carsten Hensel
- 09/2010 - 01/2011 Exchange student (Erasmus), University of Amsterdam
Research project at NIKHEF: "*Studies for low-energy muon track reconstruction with the ANTARES detector*", advisor: Dr. Dorothea Samtleben
- 07/2010 - 09/2010 Student at international summer school, 'Deutsches Elektronen-Synchrotron' (DESY), Hamburg
Research project: "*Study of different reference axes for secondary vertexing in DIS at ZEUS*", advisor: Dr. Achim Geiser
- 10/2006 - 10/2009 B.Sc. in Physics, average grade 1.5, University of Göttingen
Thesis: "*Monte Carlo studies of the inverse problem: determination of the mass of the LSP with ATLAS*", advisors: Prof. Dr. Arnulf Quadt and Dr. Carsten Hensel

Awards

- 03/2018 Finalist (4 final nominees) for Dissertation Prize of German Physical Society (DPG) in 'Matter and Cosmos' section
- 10/2017 Dissertation Prize from the Global Neutrino Network of neutrino telescopes (GNN; ~700 international scientist)
- 10/2017 Ohm-Prize for an excellent dissertation in physics, Department of Physics, University of Erlangen-Nürnberg
- 03/2017 First best poster award, International Workshop on Neutrino Telescopes (NeuTel)

Responsibilities in Research and University

- 10/2018 - present Publication committee member of ANTARES collaboration
- 04/2018 - present Analysis coordinator for first KM3NeT/ORCA data
- 02/2018 - present Editorial board member for several ANTARES and KM3NeT collaboration publications
- 01/2015 - 01/2017 Employee representative in ECAP management, University of Erlangen-Nürnberg
- 10/2013 - 04/2017 Deputy employee representative in Physikalisches Institut management, University of Erlangen-Nürnberg

Teaching Experience

- 2013 - present Co-supervision of Bachelor and Master students
- 04/2018 Substitute lecturing for advanced Particle and Astroparticle Physics course
- 2013 - present Tutorials and lab courses for advanced physics
- 2009 - present Tutorials and lab courses for first-year physics courses

Outreach Activities

- 2013 - present Explaining physics to pupils and further public in events like:
Lange Nacht der Wissenschaften: presentation of science with experiments/models
Mädchen-und-Technik and *Jugend-und-Technik*: one-day laboratory visits
Marktplatz des Wissens: science expeditions on central marketplace in Erlangen
- 2012 - present *Teilchenphysik-Masterclasses* and *International Masterclasses* in the framework 'Netzwerk Teilchenwelt': One-day hands-on events at schools (14- to 19-year old students) to give insight in topics and methods of particle physics research
- 2009 Physics show *Zauberhafte Physik*, University of Göttingen
Developed and performed educational experiments for children

Selected Talks and Seminars

- 10/2018 *Summary of Parallel Sessions: Particle Physics with Neutrino Telescopes*, invited talk at the Very Large Volume Neutrino Telescopes (VLVnT) conference, Dubna, Russia
- 08/2018 *ANTARES and KM3NeT: status and perspectives*, invited talk at the Astroparticle Physics in Germany workshop ("Zeuthen Meeting"), Mainz, Germany
- 06/2018 *KM3NeT/Super-ORCA: Measuring the leptonic CP-phase with atmospheric neutrinos*, contributed talk at the Advanced Workshop on Physics of Atmospheric Neutrinos (PANE), Trieste, Italy
- 03/2018 *Measuring the neutrino mass hierarchy with the future KM3NeT/ORCA detector in the deep sea*, invited talk at the Dissertation Prize Symposium of 'Matter and Cosmos' section at the spring meeting of the German physical society (DPG), Würzburg, Germany
- 07/2017 *Measuring the neutrino mass hierarchy with KM3NeT/ORCA*, contributed talk at the Topics in Astroparticle and Underground Physics (TAUP) conference, Sudbury, Canada

- 06/2017 *KM3NeT/ORCA: neutrino physics in the deep Mediterranean Sea*, seminar talk at the Particle Physics Seminar at the University of Bonn, Bonn, Germany
- 09/2017 *Prospects for measuring the neutrino mass hierarchy with KM3NeT/ORCA*, contributed talk at the European Cosmic Ray Symposium (ECRS) conference 2016, Turin, Italy
- 01/2014 *Neutrino mass hierarchy determination using atmospheric neutrinos – ORCA status report*, seminar talk at the Erlangen Centre for Astroparticle Physics, Erlangen, Germany

Selected Posters

- 06/2018 *KM3NeT/Super-ORCA: Measuring the leptonic CP-phase with atmospheric neutrinos*, International Conference on Neutrino Physics and Astrophysics (Neutrino), Heidelberg, Germany
- 03/2017 *Event reconstruction in the KM3NeT/ORCA detector*, International Workshop on Neutrino Telescopes (NeuTel), Venice, Italy
- 07/2015 *Studies of intrinsic resolution to low energy electron and muon neutrino events with neutrino telescopes and Reconstruction of shower-like neutrino events with the KM3NeT/ORCA detector*, International Cosmic Ray Conference (ICRC), The Hague, Netherlands
- 07/2014 *ORCA: a feasibility study of measuring the neutrino mass hierarchy with an underwater Cherenkov detector within the KM3NeT framework*, International Conference on High Energy Physics (ICHEP), Valencia, Spain